WHAT IS CLAIMED IS:

1. A method of milling a material comprising:

providing a silicon nitride based cutting tool insert;

cutting at a cutting speed of 1000-3000 m/min; and

feeding at a feeding rate of 0.05-0.5 mm/tooth to a cutting depth of 0.2-2 mm,

wherein the material comprises aluminum and cast iron.

2. The method of claim 1, wherein the cutting tool insert has a chip thickness of 0.09-0.17 mm.